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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,197	11/14/2003	Ramabhadran Balaji	AVERP2203USA	2666
7590 Heidi A. Boehlefeld Renner, Otto, Boisselle & Sklar, LLP Nineteenth Floor 1621 Euclid Avenue Cleveland, OH 44115-2191			EXAMINER WOOD, ELLEN S	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 02/06/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/714,197

Applicant(s)

BALAJI ET AL.

Examiner

ELLEN S. WOOD

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5-10,12-18 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-10,12-18 and 20-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/14/2003.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 5-7, 10, 12-15, 18, and 20-23 are rejected under 35 U.S.C. 102(e) as anticipated by Ohno et al. (US 5,811,163, hereinafter "Ohno").

In regards to claims 1 and 5, Ohno discloses a in mold label which has a thermoplastic resin film base layer (core layer) and a heat sealable resin layer (abstract). The thermoplastic resin film base layer (2) has two surfaces, wherein the heat seal layer (4) is positioned on what will be considered the first surface of the thermoplastic resin film base layer ( col. 2 lines 38-41 and fig. 1). The heat sealable resin layer comprises as the main component an ethylene/ $\alpha$ -olefin copolymer obtained by copolymerixing ethylene and an  $\alpha$ -olefin having from 3 to 30 carbon atoms using a

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metallocene catalyst (col. 3 lines 58-62). The ethylene/ $\alpha$ -olefin copolymer has a temperature rising elution peak temperature from 20 to 85°C (col. 4 lines 1-3).

In regards to claim 6, Ohno discloses that the Q value ( $M_w/M_n$  ratio) is 4 or less, preferably 3 or less (col. 12 lines 21-25).

In regards to claim 7, Ohno discloses that the ethylene/ $\alpha$ -olefin copolymer is combined with a high pressure low density polyethylene (col. 16 lines 60-64). High pressure low density polyethylene is a polymer that is known to one of ordinary skill in the art that is able to form a film.

In regards to claim 10, Ohno discloses that the heat seal layer is substantially free of ethylene vinyl acetate (table 1 examples 1-4).

In regards to claim 12, Ohno discloses that the heat seal layer contains the ethylene/ $\alpha$ -olefin copolymer and the high pressure low density polyethylene (table 1). There are no additional resins added to the heat seal layer.

In regards to claim 13, Ohno discloses that the thermal shrinkage of the label was determined by measure the difference between the two measured girth values (col. 15 lines 37-38). The measured girth was that of the unlabeled part and that of a labeled part of the containers (col. 15 lines 35-36). The girth value was 1 mm or less (col. 15 line 38 and table 1). Thus, the examiner believes that this would constitute as the label having shrinkage of less than about 5%.

In regards to claim 14, Ohno discloses that the thickness of the label is about 100 $\mu$ m which would be converted to about 4 mils.

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In regards to claim 15, Ohno discloses a layer (b) that contains printed matter (col. 14 lines 1-5 and fig. 3).

In regards to claim 18 and 21, Ohno discloses a in mold label which has a thermoplastic resin film base layer (core layer) and a heat sealable resin layer (abstract). The thermoplastic resin film base layer (2) has two surfaces, wherein the heat seal layer (4) is positioned on what will be considered the first surface of the thermoplastic resin film base layer ( col. 2 lines 38-41 and fig. 1). The heat sealable resin layer comprises as the main component an ethylene/ $\alpha$ -olefin copolymer obtained by copolymerizing ethylene and an  $\alpha$ -olefin having from 3 to 30 carbon atoms using a metallocene catalyst (col. 3 lines 58-62). The ethylene/ $\alpha$ -olefin copolymer has a temperature rising elution peak temperature from 20 to 85°C (col. 4 lines 1-3).

In regards to claim 20, Ohno discloses that the copolymer is ethylene/hexane-1 copolymer (table 1).

In regards to claim 22, Ohno discloses that the ethylene/ $\alpha$ -olefin copolymer is combined with a high pressure low density polyethylene (col. 16 lines 60-64). High pressure low density polyethylene is a polymer that is known to one of ordinary skill in the art that is able to form a film.

In regards to claim 24, Ohno discloses that the heat seal layer is substantially free of ethylene vinyl acetate (table 1 examples 1-4).

In regards to claim 25, Ohno discloses that the heat seal layer is substantially free of ethylene vinyl acetate (table 1 examples 1-4).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8, 9, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno et al. (US 5,811,163, hereinafter "Ohno").

Ohno discloses the in-mold label as previously discussed. Ohno is silent with regards to the additional polymers in the heat seal layer as being those listed in claim 8 of the instant applicant and label being either opaque or transparent.

The polymers listed in claims 8 and 23 of the instant applicant are polymers that are known in the art to increase thermoformability, adhesion properties, and processability when being coextruded. Ohno combines the ethylene/ $\alpha$ -olefin copolymer with a polyolefin (col. 16 lines 60-64), thus it would be obvious to one of ordinary skill at the time of the invention that the physical properties of the label could be altered by varying the polyolefin that is added to the ethylene/ $\alpha$ -olefin copolymer. The heat seal layer of Ohno would be able to withstand the various polyolefins because it has already been shown that polyolefins can be mixed with the ethylene/ $\alpha$ -olefin copolymer.

Ohno does not specifically state whether the labels are opaque or transparent. It is known to one of ordinary skill in the art that depending on the commercial use of the bottle one may want either an opaque label or a transparent label. The type of label

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formed can be varied depending on whether a opaque layer is used for printing or if the core layer is used for printing forming a transparent label.

5. Claims 9 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno in view of Mumpower et al. (Us 5,374,459, hereinafter "Mumpower").

Ohno discloses an in mold label which has a thermoplastic resin film base layer (core layer) and a heat sealable resin layer (abstract). The thermoplastic resin film base layer (2) has two surfaces, wherein the heat seal layer (4) is positioned on what will be considered the first surface of the thermoplastic resin film base layer ( col. 2 lines 38-41 and fig. 1). The heat sealable resin layer comprises as the main component an ethylene/ $\alpha$ -olefin copolymer obtained by copolymerixing ethylene and an  $\alpha$ -olefin having from 3 to 30 carbon atoms using a metallocene catalyst (col. 3 lines 58-62). The ethylene/ $\alpha$ -olefin copolymer has a temperature rising elution peak temperature from 20 to 85°C (col. 4 lines 1-3).

Ohno is silent with regards to whether EVA could be blended with the polyolefin.

Mumpower discloses a film that consists of an outer layer of that is a blend of linear ethylene alpha olefin copolymer and an ethylene unsaturated ester copolymer such as EVA (col. 4 lines 15-19). It would be obvious to one of ordinary skill in the art at the time of the invention to combine the in-mold label of Ohno with the outer layer of Mumpower. Ohno uses the same linear ethylene alpha olefin copolymer thus it would not alter the film to add ethylene unsaturated ester copolymer. The film of Ohno with the

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modified outer layer would provide a film with improved tactifying properties during the in-molding process.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELLEN S. WOOD whose telephone number is (571)270-3450. The examiner can normally be reached on Monday-Friday 7-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**CAROL CHANEY**  
**SUPERVISORY PATENT EXAMINER**

Ellen S Wood  
Examiner  
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